

S.N. 09/995,096
Art Unit: 2685

IN THE DRAWINGS

Please replace all sheets of drawings with the enclosed replacement sheets of drawings.

REMARKS

With the present response, Applicant amends claims 1, 2, and 4-6. Claims 1-9 are pending.

In the outstanding Office Action, the Examiner (A) asserted that the Applicant has not complied with one or more conditions for receiving the benefit of and earlier filing date under 35 U.S.C. §119(e); (B) requested new replacement drawings; (C) objected to the specification; and (D) objected to the claims.

Regarding the assertion in (A), Applicant has amended the specification to include a reference to the U.S. provisional patent application number 06/264,980, filed on January 30, 2001. It should be noted that the originally filed Declaration contained such a reference.

In reference to the request in (B), Applicant has submitted new formal drawings.

With regard to the objections in (C), Applicant has amended the specification to correct page 7, line 25 and page 8, line 38 as recommended by the Examiner. Specifically, Applicant has changed "BST5" to --BTS 5-- on page 7 and has changed the sentence on page 8 of "For example, assume that the default DVCC is 150, and when receiving slot 2 a DVCC value of 152 is encountered" to --For example, assume that the default DVCC is 150, and when receiving a second slot a DVCC value of 152 is encountered-- (emphasis added). With respect to the latter amendment, Applicant respectfully submits that the unamended text was correct but that Applicant has amended the specification to provide additional clarity. Applicant has also amended other parts of the specification to correct errors of a grammatical nature.

Regarding the objections in (D), the Examiner objected to the following as lacking antecedent basis: "the received signal" on line 8 and "and E-OTD measurement report" on line 12 of independent claim 1; and "the measurement" on line 17 of independent

claim 2. Applicant has amended independent claim 1 to state “receiving from a neighbor base station a signal on a Digital Traffic Channel (DTC)” (emphasis added). This clarification provides antecedent basis for the term “the received signal” in the clause “verifying that the received signal is a correct signal...” (line 8) of independent claim 1. Applicant has modified “and E-OTD measurement report” to be “an E-OTD measurement report” (emphasis added) as requested by the Examiner. In independent claim 2, Applicant has amended the text of “the frequency channel containing a control channel to be used for making a measurement” (emphasis added) and has added the text of “making the measurement using the control channel on the frequency channel”. The amendment and added text provides antecedent basis for the clause “associating the extracted information with the result of *the* measurement” in independent claim 2. These amendments were made for reasons other than patentability.

Applicant respectfully submits that the amendments made to the specification and claims and the submitted drawings overcome the assertion in (A), request in (B), and objections in (C) and (D).

Applicant has amended independent claim 1 and claims 4-5 to remove “the steps of” and “a step of”. These amendments were not made for patentability purposes.

With regard to rejections in the outstanding Office Action, the Examiner (1) rejected independent claim 1 under 35 U.S.C. §103(a) as being unpatentable over the combination of Ishi (U.S. 5,867,786) and Kobylinski et al. (U.S. 6,044,272) in view of Raith et al. (U.S. 6,028,854), further in view of IBM Technical Disclosure Bulletin (TDB-Acc-No. NN9108386) and Kangras et al. (U.S. Pub. No. 2002/0016172); (2) rejected independent claims 2 and 6 under 35 U.S.C. §103(a) as being unpatentable over the combined teachings of Ishi and Raith; (3) rejected dependent claims 3 and 7 under 35 U.S.C. §103(a) as being unpatentable over Ishi in view of Raith, further in view of Kangras; (4) rejected dependent claims 4 and 8 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ishi in view of Raith, further in view of Kobylinski; and (5) rejected dependent claims 5 and 9 are rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Ishi and Raith in view

of Kobylinski, further in view of IBM Technical Disclosure Bulletin (TDB-Acc-No. NN9108386) and Kangras.

With regard to the rejections recited in (1)-(5) above, Applicant respectfully traverses these rejections.

Regarding the rejections in (2) above, amended independent claim 2 (chosen as being representative of independent claims 2 and 6) recites in part: “making the time difference measurement between the neighbor base station and a reference base station using the control channel on the frequency channel”. Neither Ishi nor Raith alone disclose or imply this subject matter. Consequently, the combination of Ishi and Raith cannot disclose this subject matter. Therefore, independent claims 2 and 6 are patentable over the combination of Ishi and Raith.

Independent claim 6 recites text similar to independent claim 2 and the argument used above with respect to independent claim 2 is equally applicable to independent claim 6. Namely, independent claim 6 recites “to make the time difference measurement between the neighbor base station and a reference base station using the control channel on the frequency channel.”

Consequently, because the combination of Ishi and Raith does not disclose all features of independent claims 2 and 6, Applicant respectfully submits that independent claims 2 and 6 are patentable over the combination of Ishi and Raith.

Moreover, there is no motivation for one skilled in the art to combine Ishi and Raith. An exemplary embodiment of the disclosed invention (as embodied, e.g., in independent claims 2 and 6) is directed to ensuring that a frequency channel is a correct frequency channel for taking a time difference measurement between a neighbor base station and a reference base station. By contrast, Ishi purports to solve a problem of a mobile unit's switching to a source of interference at a frequency that is the same as a different mobile station's frequency. See col. 1, line 64 to col. 2, line 42 and col. 3, line 29 to col. 4, line 62 of

Ishi. Ishi is not concerned with ensuring that a frequency channel is a correct frequency channel for taking a time difference measurement between a neighbor base station and a reference base station. Furthermore, Raith purports to solve a problem of providing sufficient flexibility for a variety of information communication services. See Raith, col. 1, line 30-54. Raith is not concerned with ensuring that a frequency channel is a correct frequency channel for taking a time difference measurement between a neighbor base station and a reference base station. Because neither Ishi nor Raith is concerned with ensuring that a frequency channel is a correct frequency channel for taking a measurement, one skilled in the art would not be motivated to combine Ishi with Raith to so the problems that are addressed by the teachings of this invention.

For at least the above reasons, there is no motivation to combine Ishi and Raith. Because the combination of Ishi and Raith does not disclose all features of independent claims 2 and 6, and because it is inappropriate to combine Ishi and Raith, the §103(a) rejections of independent claims 2 and 6 should be withdrawn.

Regarding the rejections in (1) above, amended independent claim 1 recites in part “receiving from a neighbor base station a signal on a Digital Traffic Channel (DTC) time slot that is on the same frequency with a desired Digital Control Channel (DCCH) that is to be used for measuring the E-OTD”, “detecting and decoding a Coded Digital Voice Color Code (CDVCC) in the DTC to obtain a DVCC”, “verifying that the received signal is a correct signal for receiving the desired DCCH by comparing the received DVCC with a DVCC that forms a part of a base station neighbor list”, and “measuring the E-OTD using the desired DCCH and associating the DVCC and channel number and hyperband information with the E-OTD measurement to obtain an E-OTD measurement report that is transmitted to a Serving Mobile Location Center (SLMC).”

There is no disclosure in any one of the references cited against independent claim 1 of measuring the E-OTD using the desired DCCH, where there is a verification that the received signal is a correct signal for receiving the desired DCCH by comparing the received DVCC with a DVCC that forms a part of a base station neighbor list. Because there

is no disclosure in any of the references of the cited subject matter, the combination of the references does not disclose the cited subject matter.

However, the Examiner looks to Kangas as disclosing mobile station position methods such as the E-OTD and asserts that it would be obvious for one skilled in the art to combine Kangas with the four other references of Ishi, Kobylinski, Raith, the IBM TDB. See page 8 and 9 of the outstanding Office Action.

Applicant respectfully disagrees. The Court of Appeals for the Federal Circuit has stated the following regarding hindsight analysis in obviousness rejections:

To prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the examiner to show a motivation to combine the references that create the case of obviousness. In other words, ***the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed.***

In re Rouffet, 149 F.3d 1350, 1355-56, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998) (emphasis added). Applicant submits that the Examiner is performing a hindsight analysis. First, there are five references cited against independent claim 1. That number of references alone militates against the analysis being a non-hindsight analysis.

Second, it is respectfully submitted that the references cited against independent claim 1 are being arbitrarily combined. As described above, there is no motivation for one skilled in the art to combine Ishi and Raith. Similarly, Ishi asserts that it discloses a system for handoff that monitors carriers of peripheral zones in a mobile telecommunication system, wherein the mobile units deem transmission carriers to be true carriers received from peripheral zones when two conditions stand that the received field strengths of the transmission carriers are a certain level and significant data is found in the transmission carriers. "Due to this, the mobile units are prevented from erroneous channel switching or zone shifting due to interference or a transmission carrier from another zone which may be deemed interference." See Abstract of Ishi. Kobylinski also purports to

disclose an improved mobile assisted handoff that gives the mobile station the ability to read the transmitted digital voice color code of the candidate station. "Since the DVCC uniquely identifies the cell site to which a channel belongs, it is used to distinguish the candidate base station channel from its co-channel interferers, allowing the network to make a more informed handoff decision." See Abstract of Kobylinski. If each of Ishi and Kobylinski purports to solve problems of interference during or causing a mobile handoff, then one skilled in the art would find no need to combine these references, as each reference can be assumed to stand alone as a solution to such interference problems. Therefore, there is no motivation for one skilled in the art to combine Ishi and Kobylinski.

Applicant respectfully submits that Kangras is another arbitrarily added reference. Kangras discusses E-OTD in the Background section of Kangras. See col. 1, paragraph 0003 of Kangras. But there is no teaching or implication in Kangras of measuring the E-OTD using the desired DCCH, where there is a verification that the received signal is a correct signal for receiving the desired DCCH by comparing the received DVCC with a DVCC that forms a part of a base station neighbor list, as recited in independent claim 1.

With regard to the IBM TDB, the Applicant respectfully submits that the IBM TDB is another arbitrarily added reference. The IBM TDB specifically states that "[i]n a cellular system a receiver can isolate multiple cell site *control channels* and measure the angles to the corresponding transmitters in reference to magnetic north." See page 1 of the IBM TDB (emphasis added). While the IBM TDB does discuss a "Data Color Code" (see page 2 of the IBM TDB), the IBM TDB makes it clear that the Data Color Code appears in a control channel. However, Applicant has specifically stated the following:

A problem arises in that the mobile station must ensure that the channel that it is measuring is the correct channel, and not a channel being received from a base station in some other cell. This could be done by relying on a proper network design, or by receiving the Fast Broadcast Control Channel (F-BCCH) on the neighbor cell Digital Control Channel (DCCH) and decoding the DVCC field that is a part of the F-BCCH. The mobile station could then verify that the decoded DVCC is the same as was broadcast in the neighbor cell message on the serving cell's DCCH. *Unfortunately, the*

reception of the neighbor cell F-BCCH requires a period of time that is greater than one second, which would result in unacceptable delays for the E-OTD measurement process. As such, a need exists to quickly and reliably identify a channel to be measured.

Page 2, lines 5-17 of Applicant's specification (emphasis added). Thus, Applicant has determined that using a control channel to receive a DVCC field is possible but too time consuming when it is desirable to perform an E-OTD measurement. Thus, combining the IBM TDB with the other four references would still result in a system that does not solve a problem solved by the disclosed and claimed invention.

It was the Applicant who discovered that the E-OTD could be measured using the desired DCCH, where there is a verification that the received signal is a correct signal for receiving the desired DCCH by comparing the received DVCC with a DVCC that forms a part of a base station neighbor list. There is simply no teaching or implication in any of the references cited against independent 1 that the references should be combined in the way that the Examiner is stating they should be combined in order to meet or render obvious all the subject matter recited in independent claim 1.

Applicant respectfully submits that the combination of references cited against independent claim 1 does not imply or disclose measuring the E-OTD using the desired DCCH, where there is a verification that the received signal is a correct signal for receiving the desired DCCH by comparing the received DVCC with a DVCC that forms a part of a base station neighbor list. Applicant also respectfully submits that the combination of Ishi, Kobylinski, Raith, the IBM TDB, and Kangras is an improper hindsight analysis. Therefore, independent claim 1 is patentable over the combination of Ishi, Kobylinski, Raith, the IBM TDB, and Kangras, and Applicant request the §103(a) rejection to independent claim 1 be withdrawn.

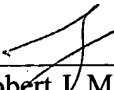
With regard to the rejections in (3)-(5) above, because independent claims 2 and 6 are patentable, dependent claims 3-5 and 7-9 are patentable for at least the reasons given above with respect to independent claims 2 and 6.

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Based on the foregoing arguments, it should be apparent that claims 1-9 are thus allowable over the reference(s) cited by the Examiner, and the Examiner is respectfully requested to reconsider and remove the rejections.

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Respectfully submitted:



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7/13/05
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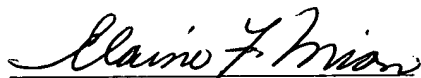
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